

TRANSPORTATION EFFICIENCY ACT ANALYSIS (ESHB 2304)

BRIEFING PAPER

Prepared for the
June 2002 Transportation Commission Meeting

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PURPOSE:

The purpose of this briefing paper is to advise the Commission of proposed work plans to respond to legislative initiatives contained in the Transportation Efficiency Act (ESHB 2304).

ACTION/OUTCOME:

Inform the Commission that:

- WSDOT is addressing requirements of the Efficiency Act;
- Some of the requirements will require additional funding because of the expected scope of effort;
- A few of the requirements only enter into law if Referendum 51 passes;
- The requirements do not contain an express deadline for completion, but work is now progressing so that most will be addressed by the end of March, 2003.

No action is required at this time.

DISCUSSION:

Three topics of the Transportation Efficiency Act set specific tasks for the Transportation Commission and for the Department of Transportation. These topics are:

- Policy Goals and Performance Benchmarks;
- Modifications to Priority Programming and Planning Statutes; and
- Local Government Reporting

Several sections of this Act in fact codify existing WSDOT practices or build upon information that WSDOT already collects. Other sections require WSDOT and other agencies to implement new initiatives.

1. Policy Goals and Performance Benchmarks

What the Act Requires:

The Act states several policy goals for the operation of, performance of, and investment in the state's transportation system. The policy goals are to be the basis of "detailed and measurable performance benchmarks" to be established by the Commission.

Sec. 101 -- The Act states, "In addition to improving safety, public investments in transportation shall support achievement of these and other priority goals" respecting the following matters:

- Condition of interstate highways, state routes and local arterials;
- Structural deficiency of bridges and priority of seismic retrofits;
- Traffic congestion on urban state highways in relation to the national mean;
- Delay per driver in relation to the national mean;
- Per capita vehicle miles traveled;
- Non-auto share of commuter trips in urban areas;
- Administrative costs in relation to national rankings; and
- Public transit agencies' cost per vehicle revenue hour in relation to peer agencies.

These provisions take effect on July 1, 2002 and the effectiveness for some of them depend on the passage of Referendum 51. There is no express deadline for the completion of the indicated task of developing the associated performance benchmarks.

What WSDOT Has Done:

Policy goals on several topics prescribed by the Act have already been presented to the Commission's Benchmark Committee in order for the Committee to begin to define and establish benchmarks for the department. The topics on which briefings have already been conducted are:

- Condition of interstate highways, state routes and local arterials;
- Structural deficiency of bridges and priority of seismic retrofits;
- Traffic congestion on urban state highways in relation to the national mean;
- Promoting travel options, i.e., supporting the non-auto share of urban commuter trips.

What Needs to be Done:

Several policy goals have not yet been addressed in depth and present significant challenges. For example, two of the topics not yet taken up by the Committee include:

- Administrative costs as a percentage of transportation spending.

This goal requires further interpretation and development because it is not clear that there is any data around the country to serve as a useful basis for state-by-state comparisons. This area is expected to receive initial attention upon the arrival of the new Chief Financial Officer.

- Median cost per vehicle revenue hour of public transit agencies.

In any case, substantial progress has been made to date on many benchmark areas. The Secretary's intention is that the remaining topics will be taken up by the end of 2002 in coordination with the Commission's Benchmark Committee. Requisite coordination with other government agencies, including local government associations, will occur over the summer and fall of 2002. The current plan is to propose the required "detailed measurable performance benchmark" to the Commission for its review and approval by the end of March 2003.

2. Transportation Planning

Priority Programming and Planning

What the Act Requires:

The Act requires WSDOT to use priority programming criteria when considering projects for the highway improvement and preservation programs. The Act states:

- *Sec. 406.1b* -- "Priority programming for the improvement program must be based primarily upon the following:
 - (i) Traffic congestion, delay, and accidents;
 - (ii) Location within a heavily traveled transportation corridor;
 - (iii) Synchronization with other potential transportation projects, including transit and multimodal projects, within the heavily traveled corridor; and
 - (iv) Use of benefit/cost analysis wherever feasible to determine the value of the proposed project."
- *Sec. 402* -- "The preservation program must require use of the most cost-effective pavement surfaces, considering:
 - (a) Life-cycle cost analysis;
 - (b) Traffic volume;
 - (c) Subgrade soil conditions;
 - (d) Environmental and weather conditions;
 - (e) Materials available; and

(f) Construction factors.”

What WSDOT Does:

Under 1993 legislation, WSDOT had already adopted specific criteria and methodology as part of its internal priority programming process. The current WSDOT priority programming statute (*RCW 47.05*) and planning statute (*RCW 47.06*) serve as the foundation for WSDOT’s planning and program management functions, most notably the Highway Improvement and Preservation Programs.

What Needs to be Done:

- The WSDOT priority programming process must be continued essentially as now conducted, with sensitivity to the emphasis the Legislature has placed on the indicated factors. All the criteria required under this Act puts into law current WSDOT priority programming practices. There are some additional practices not identified in the Act that WSDOT also includes in its priority programming system, such as, for example, unstable slopes, restricted bridges, and noise factors*. These presumably have not been removed from the priority programming process by the new law.

Analytic Tools, Modeling and Modal Analysis

What the Act Requires:

Three New Requirements: Analytic Tools, Modeling and Modal Analysis.

The Act specifies new modeling and modal analysis requirements for WSDOT’s priority programming and planning functions:

- *Sec. 401* -- “The state must develop analytic tools to use a common methodology to measure benefits and costs for all modes.” (*RCW 47.05.010*)
- *Sec. 403* -- Instructs WSDOT and the Commission to participate in and refine existing transportation demand modeling tools used “. . . to evaluate investments based on the best mode or improvement, or mix of modes and improvements, to meet current and future long-term demand within a corridor or system for the lowest cost. The end result of these demand modeling tools is to provide a cost-benefit analysis by which the department and the commission can determine the relative mobility improvement and congestion relief each mode or improvement under consideration will provide and the relative investment each mode or improvement under consideration will need to achieve that relief.” (*RCW 47.05.035*)

* Similarly, current state ferry system and intercity passenger rail plans contain priority programming criteria that are now required by this Act.

- *Sec. 404.2* -- Requires WSDOT to conduct multimodal corridor analysis on major improvements over \$100 million dollars. (*RCW 47.06.130*)

This Act section also states: “The end result of this analysis will be to provide a cost-benefit analysis by which policymakers can determine the most cost-effective improvement or mode, or mix of improvements and modes, for increasing mobility and reducing congestion.”

What WSDOT Does:

Taken together, these sections of the Act show a legislative intention that programming and investment choices made by WSDOT and the Commission and overseen by the Legislature will be based upon greater detail, depth and transparency than the Legislature now believes to be the case, where choices are to be made between and among various modes.

The following chart takes the three dimensions in which the Legislature stated the problem and presents a first level of analysis on WSDOT’s current capability and the steps that could be taken to move forward in the direction the Legislature has outlined.

Potential Modeling Tools to Meet Objectives in the Act:

Section	Do we have it now?	If no, where do we get it?
Section 401 An analytic tool using a common methodology to measure benefits and costs of all modes.	No	Develop MICA. Performs multi-modal budgetary choices based on a combination of benefit cost and goal achievement analysis.
Section 403 Transportation demand modeling tools to evaluate investments. <ul style="list-style-type: none"> • Based on best mode or improvement, or mix of modes; • To meet future long-term demand; • At lowest cost. 	No	Develop Cross-Cascades model to apply statewide. Contract with MPOs and outside consultants.
Section 404 Multimodal corridor analysis on major improvements over \$100M	Yes	<ul style="list-style-type: none"> • Continue current practice of contracting out as part of the project, or • Develop in-house expertise.

As indicated in the above chart, WSDOT does not operate a statewide traffic model, but has worked with regional and metropolitan planning organizations on project specific analysis.

There are several possible modeling and multimodal analysis tools being developed or in partial use that may be adaptable to meet requirements of sections 401, 403 and 404.2 in whole or in part:

- The *Multimodal Investment Choice Analysis* (MICA) project on which work has been proceeding at the Washington State Transportation Center (TRAC) at the University of Washington since May 2000, is intended to assist WSDOT, the Transportation Commission and the State Legislature in making budgetary analysis based on benefit-cost and goal achievement analysis. A prototype has been completed that could perform mode-specific benefit cost prioritization. This prototype indicates cross-modal investment choice analysis is feasible but additional funding would be required to refine the prototype. However, while MICA could address programming prioritization, it has not been designed to perform transportation demand modeling and multi-modal corridor analysis.
- The *Cross-Cascades Corridor Analysis Project* can serve as a regional and corridor modeling tool, but requires increased data. This prototype model performs multi-modal forecasting analyses.
- Additional modeling software is available that can be used to perform corridor and regional modeling. For example, the eight Metropolitan Planning Organizations (MPOs) can perform corridor and regional modeling, including state highways.

What Needs to be Done:

In coming months, WSDOT will provide specific presentations to the Commission on these tools and their potential for serving the needs of modal cost-benefit analysis. If funding is made available, WSDOT currently plans to proceed from there as follows:

- FY 03 and FY 04 - Refine the tool or tools for use with Washington state specific data. Current prototypes have only national or incomplete Washington state data.
- FY 03 and FY 04 - Populate and test model or models using real data. Revise the model as a result of testing and prepare for ongoing use.
- FY 03 and FY 04 - Define type of Multimodal Corridor Analysis for new projects. Develop handbook that provides a consistent approach for transportation demand modeling for projects above the \$100 million project threshold.

Chokepoints

What the Act Requires:

New Programming Requirement: Chokepoints:

- *Sec. 405 -- The new law states: “The legislature intends that funding for transportation mobility improvements be allocated to the worst traffic chokepoints in the state. Furthermore, the legislature intends to fund projects that provide systematic relief throughout a transportation corridor, rather than spot improvements that fail to improve overall mobility within a corridor.” (Emphasis added) (This provision does not relate to any current RCW)*

What WSDOT Does:

Currently, WSDOT performs its analysis as statutorily directed in RCW 47.05. WSDOT identifies mobility deficiencies and develops solutions to address those deficiencies prioritized on a benefit cost analysis. Part of the deficiency analysis includes the commonly understood concept of chokepoints.

Also, the provision on chokepoints in the Efficiency Act was enacted prior to Referendum 51. If enacted, Referendum 51 directs the expenditure of most of the Improvement program, which in effect limits some of the force of this provision for any forthcoming period in which Referendum 51 project-by-project appropriations will direct spending.

What Needs to be Done:

The Highway Improvement Program, insofar as it proposes spending that is not otherwise directed by Referendum 51, will include the chokepoint criteria of the Transportation Efficiency Act as part of the supporting analysis of the 2003-2005 biennial budget.

3. Local Government: Cities, Counties and Public Transportation

What the Act Requires:

Cities, counties and public transportation agencies are required to provide information on common measurement tools for maintenance and preservation to the Commission.

These measures only become legally effective, however, if Referendum 51 is approved by the voters.

Requirements are summarized below, including identification of tasks that are already underway or tasks that can be completed prior to November, 2002 when the outcome of Referendum 51 will be known and further steps embarked upon.

Cities

Sec. 412 -- Cities are required to provide the commission with pavement preservation rating information on their arterial networks. Specifically:

- During the 2003-2005 biennium, cities shall provide to the Transportation Commission preservation rating information on at least seventy percent of the total city arterial network. ^{**}
- In each subsequent biennia, the percentage of the arterial network on which information must be reported will increase by 5 percent.
- The rating system used by cities must be based upon the Washington state pavement rating method or an equivalent standard approved by the transportation commission.

Counties

Sec. 416 -- Requires the County Road Administration Board (CRAB) to establish a standard for maintenance of transportation assets, compile the data annually and report the findings to the Commission. (Modifies RCW 36.78.)

The new requirement states:

The board [the County Road Administration Board (CRAB)] shall establish a standard of good practice for maintenance of transportation system assets. This standard must be implemented by all counties no later than December 31, 2007. The board shall develop a model maintenance management system for use by counties. Counties shall annually submit their maintenance plans to the board. The board shall compile the county data regarding maintenance management and annually submit it to the transportation commission.

Transit

Sec. 409-411, Sec. 415 - As a condition of receiving state funding, these four sections require all public transportation agencies to submit a maintenance management plan for certification by the Transportation Commission. "The plan must inventory all transportation system assets within the direction and control of the agency and provide a preservation plan based on lowest life-cycle cost." (Modifies RCW 35.84.060, RCW 36.56, RCW 36.57A, RCW 81.112)

^{**} WSDOT understands the legislative intent of the reporting requirement will be satisfied if it covers 70% of the local arterial system as an aggregate *statewide*, rather than in each particular city.

What WSDOT/Other Agencies Do:

Cities

- A common pavement rating analysis methodology that is based on the Washington state pavement rating method^{***} or an equivalent method is currently underway through the Northwest Pavement Management Association's Condition Survey Committee. This information is expected to be available in January 2003. The difference between the state system and the systems in use by the cities is expected to be minimal. An analysis will take place on how each group of agencies shown on the accompanying chart will use criteria to trigger investments on the roadway. WSDOT believes it will be a relatively simple exercise to present the data cities are already collecting in terms of the approved pavement rating system.
- Cities are likely to be able to meet the 70% reporting requirement for the *total* city arterial network because the largest cities constitute most of the city arterial system and already record this information or something very close to it. Increased reporting of 5% per biennia will require additional effort because smaller jurisdictions not now collecting the information will have to begin to do so.
- However, the requirement will only become effective if Referendum 51 is approved. In that case the Main Street Program will provide \$25 million in city street preservation grant funding to cities with fewer than 10,000 in population. One requirement of the grant program is to inventory the jurisdiction's street system and provide preservation information to WSDOT.

^{***} The Washington state pavement rating system was generally described in the 4th Gray Notebook, 12/31/01, pg. 11; excerpts in Attachment A.

Comparison of WSDOT Pavement Rating System with Current City and County Systems				
Criteria	WSDOT	Counties	Large to Medium Cities	Small Cities
Pavement Structural Condition (PSC)	X¹	X	X All large cities and approx. 50% of medium cities	X Approx. 30% of small cities
Rutting	X²	X	X	²
Roughness	X³			
<p>¹ Pavement Structural Condition (PSC) is a measure based on distresses, such as cracking and patching. Under WSDOT a roadway should be rehabilitated when the PSC measure reaches 50.</p> <p>Depending on local funding resources, the rating measure that counties and cities are likely to use to schedule some type of maintenance & rehabilitation is in the 75 - 40 range. The counties' and cities' goal are to maintain the overall network at a 60 - 65 level.</p> <p>Counties, large sized cities and medium sized cities utilize the Pavement Surface Condition Field Rating Manual for Asphalt Pavement by the Northwest Pavement Management Association, which defines distresses in a consistent manner as WSDOT.</p> <p>H&LP has provided small cities a Simplified Local Agency Pavement Management System (StreetWise) through H&LP's pavement grants, which is a simple and non-computerized visual rating system.</p>				
<p>² A roadway should be rehabilitated when the rut depth is greater than 1/3 inch.</p> <p>Many small cities do not measure rutting. The StreetWise system which many small cities use does not use rutting as one of the distresses that are measured.</p>				
<p>³ The International Roughness Index (IRI) is a procedure that measures pavement ride. A roadway should be rehabilitated when the IRI value is greater than 220 inches per mile, a standard that may be tightened to 170 inches per mile. (See Gray Notebook discussion of IRI on the first page of Attachment A).</p>				

Counties

The counties have maintenance plans. Last year in preparation for the possible passage of Referendum 51, CRAB started a program to formalize all county maintenance plans into one type of system. This new law sets December 31, 2007 as the deadline for CRAB to complete this formalization process.

Transit

The 26 local public transportation agencies currently submit information on their system assets to the Public Transportation and Rail Division (PT&R) in the Public Transportation Management System. A standard statewide preservation system based on lowest life-cycle cost is not currently performed or in development. (See Attachment B)

What Needs to be Done:

Cities

The work of WSDOT in connection with this requirement will principally be performed by the Highways and Local Programs Office. The steps to be taken will be:

- Determine the percentage of the cities' arterial network that is currently being rated using the Washington state pavement rating method or a system that can be easily used for reporting consistent with that reporting method. *The belief is 70%+ of the statewide totality of the arterial network is currently being rated. This task will be completed by July 1, 2002.*
- Survey all the cities and towns to determine who is rating their networks and what they are using. Identify those cities and towns not currently using any rating system and those using a manual system such as StreetWise. *Survey in progress; expected to be completed by July 1, 2002.*
- Determine a common pavement rating analysis methodology that is based on the Washington state pavement rating method or a substantially equivalent method that could be used as a template for reporting preservation rating information. *Process is underway through the Northwest Pavement Management Association's Condition Survey Committee. The task is expected to be completed by January 1, 2003.* To the extent that the methodology will differ from the state pavement rating system the Commission will be asked to consider and endorse "substantial equivalency" as required by the Act.
- FY03 – In consultation with the Association of Washington Cities (AWC), determine the reporting mechanism/process that will be used to deliver rating data to the commission. The Commission will then begin to receive preservation rating information.

Counties

The Commission may wish to monitor formalization of county maintenance plans. At a later date the Commission will receive reports through CRAB after the process is completed.

Transit

If Referendum 51 passes:

- Maintenance management plans would be required before the first distribution of transit funds in either April 1, 2003 or May 1, 2003.

- WSDOT, in cooperation with the Washington State Transit Association (WSTA) will have to then make plans to complete this reporting requirement in time for the first distribution of transit funds.

RESPONSIBILITIES WITHIN THE DEPARTMENT:

WSDOT staff is continuing development and refinement of the tasks needed to satisfy the requirements under the Transportation Efficiency Act. Activities will be led by the Transportation Planning Office (Ashley Probart) and will be supported by:

- Highways and Local Programs (Kathleen Davis),
- The Public Transportation of Rail Division (Jim Slakey), and
- Pavement Management (Linda Pierce).

The next status report for the Commission will be provided in November 2002, after the outcome of Referendum 51 is known.

RECOMMENDATION:

No action is required.

For further information, contact: Ashley Probart, Manager, Transportation Planning Office, probara@wsdot.wa.gov, 360-705-7958

ATTACHMENT A

Pavement Conditions on State Highways*

WSDOT has been rating pavement condition since 1969. Pavement rated in *good* condition is smooth and free of defects. Pavement in *poor* condition is characterized by cracking, patching, roughness, and rutting. From 1969 to 1998, trained teams rated pavement by driving every state highway and noting pavement distress from the vehicle.

To improve efficiency and accuracy, WSDOT purchased a new van in 1999 that provides for automated data collection. The new van collects video images of the roadway, as well as measurements of pavement conditions. The pavement images are reviewed, analyzed, and rated by pavement technicians at computer workstations. Pavements are rated on pavement structural condition (PSC), rutting, and roughness (see below).

Determining Pavements “Due” for Rehabilitation



Pavement Structural Condition (PSC)

A pavement will develop structural deficiencies (for example, cracking) for two reasons: truck traffic and cold weather. The PSC is a measure based on distresses, such as cracking and patching, which are related to the pavement's ability to carry loads. PSC ranges from 100 (best condition) to 0 (worst condition). A roadway should be considered for rehabilitation when it falls within the PSC range of 40 to 60.



Rutting

Rutting is caused by heavy truck traffic or studded tire wear. Ruts deeper than 1/2 inch have the potential to hold water, increasing the risk of hydroplaning for high-speed traffic. A roadway should be rehabilitated when the rut depth is greater than 1/3 inch.



Roughness

The International Roughness Index (IRI) is a procedure to measure pavement ride. A full-sized van, with a laser-measuring device mounted on the front bumper, measures the roughness of the pavement. A roadway should be rehabilitated when the IRI value is greater than 220 inches per mile. The benchmark for FHWA's report is 170 inches per mile (WSDOT is currently re-evaluating its “220 inches” standard. An alignment with FHWA's reporting standard is now under review).

WSDOT uses a combination of pavement ratings to determine when pavement is due for rehabilitation. Points are subtracted as the pavement begins to age and show distress such as cracking, patching, etc. In 1993, the Legislature required WSDOT to rehabilitate pavements at the Lowest Life Cycle Cost (LLCC). WSDOT determined that LLCC occurs at a PSC range between 40 and 60 or when triggers for “rutting” or “roughness” are met. Ideally, when a portion of state highway pavement falls within this range, the department completes its procedures for design and construction bidding. If rehabilitation is done too early, pavement life is wasted. If rehabilitation is done too late, additional – and possibly very costly – repair work may be required if the underlying surface structure is compromised.

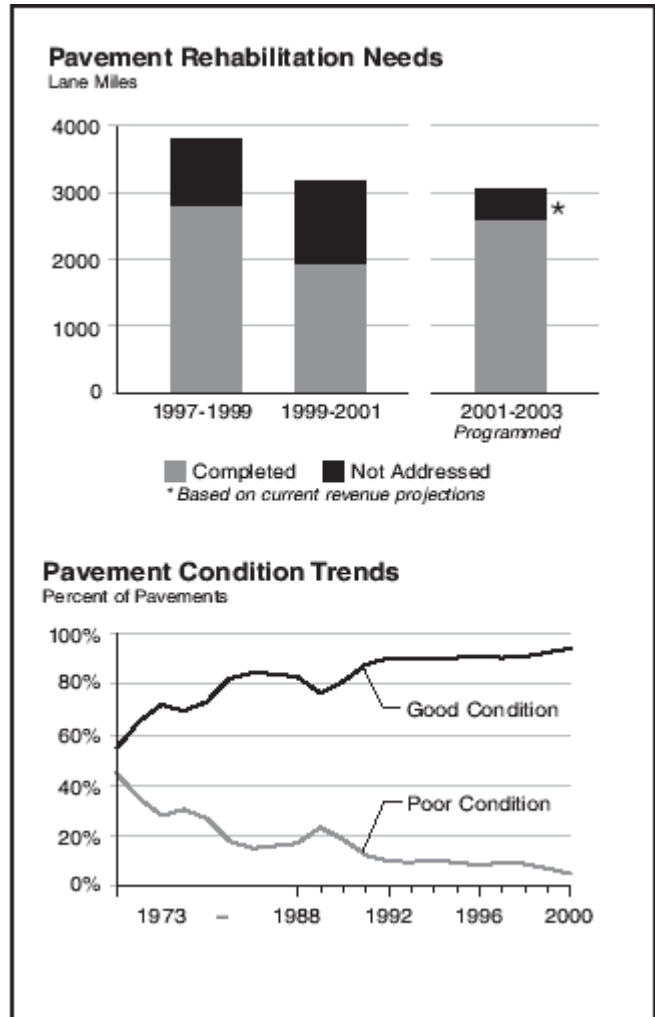
* This updates the Gray Notebook for June 30, 2001, Pavement Conditions on State Highways.

Pavement Rehabilitation Needs

Using pavement condition measures, WSDOT is able to determine the number of lane miles of pavement due to be rehabilitated each year. Often times, the funding level is not sufficient to address all of the pavements that are currently due for rehabilitation. The graph illustrates, by biennium, the number of miles rehabilitated and the number of miles due for rehabilitation that were not addressed due to funding constraints or other program impediments. One thousand miles fell into the "not addressed" category in 1997-1999, and 1,181 miles in 1999-2001. During 2001-2003, 446 miles are not programmed. Miles that are due for rehabilitation, but not addressed, will be completed in future biennia as funding permits.

Pavement Performance

WSDOT's goal is to achieve a pavement system in which no pavements are in *poor* condition. WSDOT manages close to 18,000 lane miles of pavement surface and as of the year 2000 pavement rating, about 6 percent of the pavements are in poor condition. (Since the June 30, 2001 *Gray Notebook*, WSDOT has changed pavement condition categories to better implement the LLCC approach. This adjustment resulted in revising the percentage of pavements in "poor" condition from 9 percent to 6 percent.) The trend over the last five years has shown slight decreases in the percent of pavements in poor condition, complemented by increases in the percent of pavements in good condition.



How Do Washington's Pavements Compare Nationally?

The Federal Highway Administration (FHWA) publishes an annual report entitled *Highway Statistics*. Included in this report is information concerning pavement smoothness in each of the 50 states and the District of Columbia. All states are required to provide FHWA with smoothness data for a sampling of their public roads. To the right is a snapshot of the ranked table that shows the number of miles, by state, in poor condition according to smoothness. The total miles reported includes the interstate system and principal arterials owned by the state, cities, and counties, and a sampling of other functional classes. Washington state is ranked 10th in smooth roads.

This publication can be viewed at
www.fhwa.dot.gov/ohim/hs00/index.htm

*This rating is based only on the International Roughness Index (IRI). In contrast, WSDOT measures pavement performance using all three ratings: pavement structural condition, rutting, and roughness.

Roadway Smoothness by State*

Source: FHWA, *Highway Statistics 2000*

Ranking	State	Centerline Miles Reported	Miles in Poor Condition	Percent in Poor Condition
1	Georgia	11,554	7	0.1
2	Alabama	7,721	34	0.4
3	Kansas	8,655	102	1.2
4	Minnesota	11,582	150	1.3
5	North Dakota	6,179	95	1.5
6	Florida	10,398	176	1.7
7	Wyoming	4,413	78	1.8
8	Utah	3,752	80	2.1
9	Arizona	3,861	83	2.1
10	Washington	5,368	131	2.4
11	Kentucky	5,156	130	2.5
12	Idaho	3,839	114	3.0
13	Nevada	2,924	89	3.0
14	Montana	6,968	219	3.1
15	Tennessee	7,250	269	3.7
24	Oregon	6,249	407	6.5
48	California	20,317	5,263	25.9
50	New Jersey	2,883	925	32.1

ATTACHMENT B

Criteria currently collected by the 26 local public transportation agencies and submitted to PT&R are:

- Service Population Area

Annual Operating Information

- Fixed Route and Demand Response Services
 - Revenue Vehicle Hours
 - Total Vehicles Hours
 - Revenue Vehicle Miles
 - Total Vehicle Miles
 - Passenger Trips
 - Diesel Fuel Consumed (gallons)
 - Fatalities
 - Reportable Injuries
 - Collisions
 - Employees (FTEs)
 - Operating Cost – Sustained Service
 - Operating Cost – Expanded Service
 - Farebox Revenue
- Vanpooling Services
 - Revenue Vehicle Miles
 - Total Vehicle Miles
 - Passenger Trips
 - Vanpool Fleet Size
 - Vans in Operation
 - Diesel Fuel Consumed (gallons)
 - Fatalities
 - Reportable Injuries
 - Collisions
 - Employees (FTEs)
 - Operating Cost – Sustained Service
 - Operating Cost – Expanded Service
 - Vanpool Revenue

Annual Revenues

- Sales Tax
- MVET
- State Bridge Allocation
- Fares
- Vanpooling Revenue
- Other
- Total Annual Revenue
- Annual Operating Expenses

Annual Capital Purchase Obligations

- Federal Section 5307 Capital Gains
- Federal Section 5309 Capital Gains
- General Fund
- Total Capital Purchases

Ending Balances, December 31

- General Fund
- Vehicle Sinking Funds
- Underground Storage Insurance
- Total

Performance Measures for Yearly Operations

- Fares/Operating Cost
- Operating Cost/Passenger Trip
- Operating Cost/Revenue Vehicle Mile
- Operating Cost/Revenue Vehicle Hour
- Operating Cost/Total Vehicle Hour
- Revenue Vehicle Hours/Total Vehicle Hour
- Revenue Vehicle Hours/FTE
- Revenue Vehicle Miles/Revenue Vehicle Hour
- Passenger Trips/Revenue Vehicle Hour
- Passenger Trips/Revenue Vehicle Mile